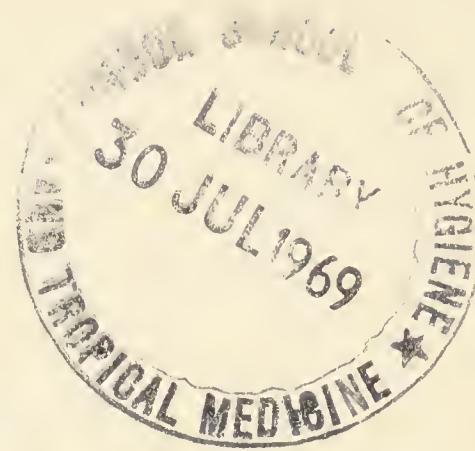


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TENTH

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

TO

The Education Committee

OF THE

SALOP COUNTY COUNCIL.

1917.

JAMES WHEATLEY, M.D., D.P.H.

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JAMES WHEATLEY, M.D., D.P.H.

Medical Staff.

School Medical Officer :

JAMES WHEATLEY, M.D., D.P.H.

Medical Inspectors :

AUGUSTE BOYES, M.B., Ch.B.

(Resigned 23rd February, 1918).

Temporary Medical Inspectors :

FLORA MACDONALD MACDONALD, M.B., Ch.B.

JANE BOYES, L.R.C.P., L.R.C.S. (Part-time).

To the Chairman and Members of the Salop Education Committee.

LADIES AND GENTLEMEN,

I beg to present my tenth Annual Report as Medical Officer to the Salop Local Education Authority.

In accordance with instructions of the Board of Education and of the Education Committee, the report is cut down to the smallest possible dimensions compatible with the maintenance of due continuity.

Matters of great general interest which have been repeated in past years are this year omitted, and the remarks are almost entirely confined to the actual work of the year.

Although the statistics are much curtailed, there is all the material in the office for instituting full inquiries at any future time.

The importance of medical inspection has been greatly emphasized by the war, and it is generally felt that we cannot as a nation afford to allow children to grow up with serious and crippling defects that can be prevented or remedied.

Everything points to the vast improvement that can be effected in the health of the nation by improvement of the environment of the child in certain directions. With the adoption of correct methods of feeding the infant, with the great decrease of dental caries and oral sepsis that would follow on correct habits of eating, with the proper development of physical training we may look forward to having a population in which physical inefficiency is quite the exception. The possibility of carrying out these and other improvements depends greatly upon the housing, school and industrial conditions being satisfactory.

Along with the improvement of these conditions which are essential to health and sound growth, there must be an extension and improvement of the medical and nursing facilities for detecting any departures from the normal and for remedying them. Under such categories come the provision of clinics, for the diseases of eyes, throat cases, etc., dental clinics, clinics for minor ailments, and increased provision for medical inspection and for school nursing.

An essential part of the scheme is the training of teachers in hygiene for the purpose of training the children and for teaching the older girls "mothercraft."

Sir George Newman in his report for 1916 lays down as the irreducible minimum :—

- (i.) "That every child shall periodically come under direct medical and dental supervision, and if found defective shall be "followed up";
- (ii.) That every child found mal-nourished shall, somehow or other, be nourished, and every child found verminous shall, somehow or other, be cleansed;

- (iii.) That for every sick, diseased, or defective child, skilled medical treatment shall be made available, either by the Local Education Authority or otherwise;
- (iv.) That every child shall be educated in a well-ventilated schoolroom or classroom, or in some form of open-air schoolroom or classroom;
- (v.) That every child shall have, daily, organised physical exercise of appropriate character;
- (vi.) That no child of school age shall be employed for profit except under approved conditions;
- (vii.) That the school environment and the means of education shall be such as can in no case exert unfavourable or injurious influences upon the health, growth, and development of the child".

The appointment in 1918 of two whole-time school nurses has been an important step forward and will enable us to carry out important work previously much neglected in certain districts.

Dr. Auguste Boyes who has acted as a medical inspector in this County with marked efficiency since the commencement of this work has resigned, and her resignation has been accepted with much regret.

Dr. Flora Macdonald Macdonald has been appointed in her place for the period of the war.

Owing to the curtailment of medical facilities the routine inspection of school children has been given up and a less complete system of inspection (see page 4) has been adopted.

I am, Ladies and Gentlemen,

Your obedient Servant,

JAMES WHEATLEY,

*County Buildings,
Shrewsbury,
June, 1918.*

County Medical Officer of Health,
and School Medical Officer.

AREA COVERED BY THE SALOP LOCAL EDUCATION AUTHORITY, NUMBER OF SCHOOLS, DEPARTMENTS, AND CHILDREN ON REGISTER.

The area covered by the Salop Education Authority comprises 858,277 acres, and had a population at the 1911 census of 201,673. It is co-terminous with the Administrative County with the exception that the Borough of Shrewsbury is not included. The number of Schools is 293, comprising 356 departments. The number of children on the registers necessarily varies from time to time to some extent. On November 16th, 1917, it was 33,305.

HYGIENIC CONDITION OF SCHOOLS.

Structural alterations for the improvement of health conditions have been limited mostly to matters urgently required.

There are many improvements that should be effected as soon as a suitable opportunity arises. After ten years medical inspection there are still a large number of schools in which the ventilation, heating, and lighting, and the lavatory, cloakroom and sanitary accommodation are quite unsatisfactory. The methods hitherto adopted for bringing about the necessary improvements have not proved efficient.

The limitations put upon capital expenditure in the improvement of schools, make it all the more necessary that every effort should be made by managers, teachers, and school cleaners to maintain the school in as sanitary condition as possible. It is particularly important that the floors and walls of the schools should be washed more frequently than usual.

ARRANGEMENTS MADE FOR MEDICAL INSPECTION.

The general arrangements described in my reports for 1909 and 1912 have continued throughout the year.

It has not been possible owing to the depletion of medical services to continue to the full the inspection made up to the end of 1915.

During the year 1917, 111 school departments and 10,316 school children were not inspected systematically, but 33 of these schools with 2,620 children on the registers were visited by the School Medical Officer and urgent cases dealt with.

From the beginning of 1918 routine inspection of code groups has been dropped and the work has been confined to re-examination of cases previously found defective and to the examination of the cases picked out by the teachers and nurses as appearing to be defective. The nurses and teachers have been asked to specially look out for any signs of defects, and the teachers conduct a preliminary examination into the eyesight of all children of seven years of age and over. A rough indication has been given as to what to be on the look-out for, and more detailed instructions are under consideration. My thanks are due to the teachers and nurses for the manner in which they have undertaken this work.

SCHOOL NURSES.—Seventy-three nurses have been employed in connection with 215 school departments ; 62 of these nurses are working for Associations connected with the Shropshire Nursing Federation, 5 are nurses employed by other Associations or by private persons, 2 are working on their own account, and 4 are employed by the Lady Forester Trust in the Borough of Wenlock.

The number of children in schools provided with nurses is now 19,664, an increase of 587 since 1916.

On the whole, the scheme has worked satisfactorily, and has proved very beneficial.

Since the end of the year, two whole time school nurses have been appointed to deal, so far as possible, with schools not hitherto provided with nurses.

VOLUNTARY HELPERS.—(see remarks page 8, report for 1914). In addition to the list given, the following schools are without helpers :—Hopton Wafers, Ightfield, Lineal and Wombridge C.E.

TEACHERS, ATTENDANCE OFFICERS AND SCHOOL ATTENDANCE.—(see page 9, report for 1914). The teachers have continued to afford great help in the work of medical inspection, and as the work of inspection has become less complete, their help has become even more valuable and essential.

The co-ordination of the work of school nurses and attendance officers is a matter that requires further consideration.

In my report for 1916 I pointed out how unsatisfactory the school attendance had been in many districts, and that this must be regarded as a serious matter, not only educationally, but also as affecting the health of the children. The number of absentees at the "Head Inspections" as shown on page 9 indicates that in many localities the attendance was bad during the year 1917.

PRESENCE OF PARENTS AT INSPECTIONS AND THEIR CO-OPERATION.—(advantages of, see page 10, report for 1914).

INTERFERENCE WITH ROUTINE SCHOOL WORK AND THE ARRANGEMENTS FOR CORRELATION OF THE SCHOOL AND PUBLIC HEALTH MEDICAL SERVICES are as described in the report for 1914.

EXTENT AND SCOPE OF THE MEDICAL INSPECTION CARRIED OUT IN THE YEAR 1917.

With the exception of a number of schools which were not inspected (see page 4) full systematic examinations were made of children age 12, and all entrants over 5; children under 5 were examined superficially. In addition all cases thought to be defective by the teachers were examined and all children found defective on previous inspections.

The special cases referred to in Table II. include both those brought to the notice of the Medical Inspectors by the teachers, and children under 5 years of age.

In the Borough of Wenlock the first systematic inspection is made on entry and not at the age of 5.

TABLE I.

NUMBER OF CHILDREN INSPECTED 1ST JANUARY, 1917, TO 31ST DECEMBER, 1917.

A—"CODE" GROUPS.

| Age. | Entrants. | | | | | | Leavers. | | | | | |
|--------------|-----------|-----|------|-----|-------------|--------|----------|-----|----|-------------|--------|--------------|
| | 3 | 4 | 5 | 6 | Other ages. | Total. | 12 | 13 | 14 | Other ages. | Total. | Grand Total. |
| Boys | 66 | 241 | 976 | 482 | 282 | 2047 | 1355 | 310 | 8 | 3 | 1676 | 3723 |
| Girls | 53 | 228 | 935 | 499 | 267 | 1982 | 1385 | 205 | 8 | 3 | 1601 | 3583 |
| Totals | 119 | 469 | 1911 | 981 | 549 | 4029 | 2740 | 515 | 16 | 6 | 3277 | 7306 |

B—GROUPS OTHER THAN "CODES."

| | | Special Cases. | Re-examinations. |
|--------------|--|----------------|------------------|
| Boys | | 378 | 1867 |
| Girls | | 387 | 1909 |
| Totals | | 765 | 3776 |

The total number of children examined was 11,847, as compared with 12,744, or a decrease of about 7 per cent. The decrease was fairly evenly distributed amongst all the groups.

The result must be considered as very satisfactory, considering the further depletion of medical services. Roughly speaking, about one third of the children on the school registers were examined, and probably a very large proportion of those who urgently needed examination.

TABLE II.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL INSPECTION.

| Defect or Disease. (1) | Code Groups. | | | Specials. | |
|--|---------------------------------------|---|---------------------------------------|---|--|
| | Number referred for treatment. (2) | Number requiring to be kept under observation, but not referred for treatment. (3) | Number referred for treatment. (4) | Number requiring to be kept under observation, but not referred for treatment. (5) | |
| Malnutrition | — | 12 | 1 | 4 | |
| Uncleanliness : Head | 1527 | — | 47 | — | |
| Body | 18 | — | 8 | — | |
| Ringworm : Head | 45 | — | 61 | — | |
| Body | 7 | — | 13 | — | |
| Scabies | 41 | — | 63 | — | |
| Impetigo | 73 | — | 60 | — | |
| Other Skin Disease | 16 | 3 | 9 | — | |
| Defective Vision and Squint | 522 | 93 | 301 | 45 | |
| External Eye Disease | 18 | 9 | 18 | 8 | |
| Defective Hearing | 18 | 3 | 7 | 1 | |
| Ear Disease | 22 | 11 | 16 | 3 | |
| Dental Disease | 136 | — | 48 | 2 | |
| Enlarged Tonsils | 248 | 373 | 40 | 19 | |
| Adenoids | 20 | 118 | 16 | 20 | |
| Enlarged Tonsils and Adenoids | 127 | 321 | 27 | 11 | |
| Defective Speech | — | 22 | — | 3 | |
| Heart Disease : Organic | 4 | — | 2 | 2 | |
| Functional | 10 | 10 | 1 | 1 | |
| Anæmia | 25 | 49 | 4 | 7 | |
| Pulmonary Tuberculosis : Definite .. | 3 | 2 | 4 | — | |
| Suspected .. | 7 | 36 | 2 | 22 | |
| Chronic Bronchitis | 5 | 33 | 2 | 1 | |
| Other Lung Disease | 5 | 2 | 1 | — | |
| Epilepsy | 4 | 2 | 5 | — | |
| Chorea | 2 | — | — | — | |
| Other Disease of Nervous System .. | — | — | 2 | 6 | |
| Non-Pulmonary Tuberculosis : Glands .. | 7 | 6 | 2 | — | |
| Bones and Joints .. | — | — | 2 | — | |
| Other Forms .. | — | — | 1 | 2 | |
| Rickets | 1 | 5 | — | — | |
| Deformities | 31 | 10 | 1 | 2 | |
| Other Defects or Diseases | 53 | 141 | 39 | 23 | |

Of the children systematically examined 23.6 per cent. were suffering from defects requiring medical attention. The corresponding percentages were 17.3 in 1916, 16.3 in 1915, 18.9 in 1914, and 19.5 in 1913.

Statistics with regard to prevalence of infectious disease amongst the children have not been got out this year, but the material is available for future investigation if wanted.

EYESIGHT.—The percentage of defective vision amongst those systematically examined was 16.0 per cent. compared with 16.1 in 1916 and 15.2 in 1915.

The preliminary examination conducted by the teachers has continued to be most useful in the absence of an intermediate inspection, and has resulted in the discovery of a large number of cases of defective eyesight that would otherwise have been overlooked.

Sir George Newman in his report for the year 1916, after stating that "The great majority of children enter the schools with normal vision, but owing in large measure to the defective conditions under which Instruction is given, that number is seriously diminished in the course of a few years." says :—"The wise and sensible policy for every Authority to adopt in these circumstances is :—(a) to review the whole question of defective vision in their schools, its prevalences and its cause; and (b) to devise a scheme of amelioration; including proper and continuous preventive action—better lighting, better educational methods, and much less strain of the delicate and growing vision faculty of the child."

The bad effect of the cinematograph on children's eyesight is a matter that is receiving considerable attention. On this point Dr. Boyes says :—"Detailed investigation into the effect of the Cinematograph on children's eyesight would probably yield valuable results. In some districts in the County it is common for the older children who earn some money to go regularly twice a week. In some cases the teachers have noticed deterioration in vision following on the practice. I am of opinion that often in comparatively slight cases of hypermetropia and astigmatism eyestrain results, necessitating glasses. Frequently the children will admit that going to the pictures makes their eyes ache, and several boys have told me that they had to stop going on that account. A point to be borne in mind is that these children go to the cheapest seats close to the screen, where of course the effort of accommodation is greatest."

DEFECTS OF NOSE AND THROAT.—The defects of the nose and throat were almost entirely obstructive conditions due to adenoids and enlarged tonsils. Of the 7,306 children (code groups), 5.4 per cent. were suffering from defects requiring medical treatment; of these 127 or 1.7 per cent. had both adenoids and enlarged tonsils, 248 or 3.4 per cent. had enlarged tonsils alone, and 20 or .3 per cent. had adenoids alone. Amongst the special cases, 27 were referred for medical treatment for both adenoids and enlarged tonsils, 40 for enlarged tonsils and 16 for adenoids. The total number of cases referred for treatment were for adenoids and enlarged tonsils 154, for enlarged tonsils alone 288, and for adenoids alone 36, or a total of 478.

These figures appear to show that the provision for treatment should be capable of dealing with about 500 cases a year.

TEETH.—Statistics with regard to the decay of teeth have not been got out for this year, but the records are in the office and can be analysed at some future period if necessary.

The relationship between dental caries and defective throat conditions is being observed by the Medical Inspectors and the advisability of having decayed teeth treated in cases of enlarged tonsils and adenoids is borne in mind.

The work of the prevention of dental caries is being steadily pushed forward by teaching in the schools, and in the homes by health visitors. I am coming to the conclusion that of all the rules for the prevention of caries of the teeth, the most important is—"do not drink at meal times." If this rule is observed, food must be thoroughly masticated, and a good flow of saliva will be obtained. The food will be well mixed with saliva and will be in a condition not liable to stick to the teeth. Moreover, with a free flow of saliva, and with thorough working of the jaws, saliva will be forced between each tooth and into the crevices. The universal teaching of this simple rule would, I am convinced, do a very great deal towards the prevention of dental caries.

For a description of the measures taken for the prevention of dental caries and for the rules to be observed, reference must be made to pages 31 and 32 of the Annual Report for 1914.

DENTAL TREATMENT.—As soon as practicable after the war, dental clinics should be started to deal not only with school children, but also with children below school age and adults. To treat school children only is illogical and wasteful. At present only about one tenth of the population have any dental treatment worthy of the name and the problem will be to provide the necessary professional services.

TUBERCULOSIS.—*Phthisis*.—Out of 7,306 children examined (code groups) only 5, or .07 per cent. were diagnosed as suffering from phthisis. In addition there were 43 or .6 per cent. who showed signs or symptoms pointing to phthisis in an early stage, but the symptoms were not sufficiently definite to allow of a diagnosis being made. Amongst the extra cases and the children under 5 years of age, there were four definitely diagnosed and 24 suspected.

Forty-one children were referred to the Tuberculosis Officer for examination. Twelve of these were definitely diagnosed as phthisis; 14 as suspicious of phthisis; 8 were reported as showing no signs of tuberculosis, and 7 have not yet been seen.

The Medical Inspectors are now supplied with lists of children from phthisis houses. Under this arrangement 242 children were referred for examination. Of these, 163 have not yet been seen. Seventy-nine children were examined; 6 were suspicious of consumption, and in 73 there were no physical signs.

The cases from previous years have been kept under observation. Twenty-one children of school age, belonging to the Education County, were treated in the County Sanatorium during the year.

Other Forms of Tuberculosis.—Thirteen cases were found amongst the children systematically examined and 2 amongst the extra cases.

Five children of school age belonging to this County, suffering from tuberculosis other than phthisis, were treated during the year in the Shropshire Surgical Home, Baschurch. This does not include cases from the Borough of Shrewsbury.

DISEASES OF HEART AND RHEUMATISM.—Enlarged and septic tonsils, rheumatism and heart disease are very closely associated. It is probable that the organism responsible for rheumatism and heart disease usually gains access to the body through the tonsils, and that enlarged and diseased tonsils are a breeding ground for these germs which may gain access to the blood when the body is subjected to any depressing condition. Amongst such depressing conditions in school children, the most common and most injurious is sitting in wet boots and wet clothes. A similar low condition of the body is probably brought about by sitting for considerable periods in schoolrooms at a very low temperature. The lack of ventilation of the schoolroom and of the sleeping-room at home are probably important factors in bringing about the condition of throats favourable to the growth of the harmful organisms.

It follows from these remarks that for healthy school conditions one must have provision for drying clothes, for the substitution of dry slippers for wet boots, and for the adequate warming and ventilation of the schoolrooms. Many of the schools are very inadequately warmed and I am confident that much ill health is in consequence produced particularly amongst the ill fed and insufficiently clothed children. In such schools an attempt is always made to minimise the discomfort produced by insufficient heating, by closing all the windows.

A pamphlet dealing with rheumatism has been drawn up for the guidance of teachers and parents.

RINGWORM.—Of the children examined (code groups) 45 or .6 per cent. were found to be suffering from ringworm of scalp.

Amongst the extra cases there were 61 cases of ringworm of the scalp.

In addition, 389 cases have been notified by the teachers. These were not usually based on medical opinion.

Examination of hairs was made by the Medical Inspectors in 427 cases—221 positive and 206 negative.

Hairs were submitted to Birmingham University, with 40 positive results, and 55 negative results.

When authorised by the School Medical Officer, children suffering from ringworm are now admitted to school, if the parent undertakes to carry out certain stringent precautions. It is also an essential condition of admission that the teacher shall undertake to see that the precautions are carried out.

It is not anticipated that this procedure will increase the spread of ringworms in schools, and in many instances it will certainly bring about a better treatment of the cases.

X-ray treatment should be provided for these cases as soon as possible after the end of the war.

VERMINOUS HEADS.—The figures with regard to this condition as found at the Medical Inspection are given in Table II., and show that 20 per cent. of the children examined were more or less verminous.

There is evidence that a higher standard of cleanliness is being brought about, particularly where there are school nurses.

The instructions now to the school nurses are to examine the heads of the children each term, that is three times a year, and to follow up the verminous children so as to get them clean before the end of the term. The inspection in the following term is to be begun *de novo*. If instructions had been carried out there would have been 590 primary inspections and about 1,700 following up inspections in the year. So far as the returns show, there appear to have been 623 primary inspections and 1,204 following up inspections. At the primary inspections 48,812 children were examined and 5,703 were found verminous or a percentage of 11.7.

These figures compare with 46,519 children examined in 1916, of whom 7,272 or 15.6 per cent. were verminous. It is satisfactory to observe that the percentage found verminous was considerably less. On this point however there is a marked difference between the percentage found verminous by the Medical Inspectors and the nurses—20 per cent. by the former and 11.7 per cent. by the latter. My remarks in last year's report may be repeated:—This large difference to some extent is due to the fact that the schools for which there is nursing provision are mostly the country schools and the children consequently cleaner. It may indicate that already the efforts of the nurses have had a considerable effect, but it is probably principally due to the personal factor of the examiners.

The following figures show the results of the examination of heads by school nurses. It must be remembered that on the second and subsequent inspections only those found verminous or absent at previous inspections are examined.

First Inspection.—Number examined 48,812. Verminous 5,703.

Subsequent Inspections.

| | 2nd inspection. | 3rd inspection. | 4th inspection. | 5th inspection. | 6th inspection. |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Verminous .. | .. 3403 | 2226 | 1623 | 1043 | 379 |
| Absent .. | .. 670 | 627 | 449 | 311 | 110 |

In interpreting these figures it must be borne in mind that in some schools a third inspection was not made and in many there was no fourth or fifth inspection, so that the apparent decrease of verminous conditions is greater than the real decrease.

The large number of absent children is a striking feature, and indicates a considerable laxity in school attendance.

In our scheme for getting rid of verminous conditions we rely principally upon detection, advice and general education. It is found that where the teacher takes a special interest in the cleanliness of the children, verminous conditions are the exception and there is usually little difficulty in dealing with those that are found. There are, however, families that it is impossible to influence by advice and help, and it is imperative for the sake of the other children that these cases should be proceeded against in court. If the children are not only dirty but are seriously neglected in other respects they are reported to the Inspector of the Society for the Prevention of Cruelty to Children. Four cases were reported during the year. Other proceedings are taken under the Attendance Bye-Laws. Thirty-three such prosecutions were taken during the year. In fifteen cases, fines varying from 2/6 to 10/- were imposed. Four cases were dismissed and 14 cases were adjourned. These proceedings undoubtedly had a very beneficial effect in the districts.

SCABIES.—Undoubtedly this condition is on the increase, and the increase is due principally to infection from soldiers returning home. It is a home infection principally and can only be dealt with satisfactorily by subjecting all the inmates affected to treatment, and at the same time cleansing or disinfecting all the clothing likely to be infected. Consequently the close co-operation of the Sanitary Authorities is necessary for dealing with this condition satisfactorily.

On the treatment of scabies, ringworm and impetigo, Dr. Boyes says :—"It is very unusual for children suffering from scabies or impetigo to be taken to a doctor for treatment, and many cases of ringworm are treated by chemists, or by the parents with remedies of various kinds suggested by neighbours, and only go to a doctor for the certificate to enable them to return to school. The period of absence from school would be much shortened if clinics were held periodically at suitable centres for these cases. If the rule were made that all ringworm cases from schools in the neighbourhood should attend at the clinic for inspection before being re-admitted to school, insistence upon the production of a medical certificate could be dispensed with in districts where there was a school clinic."

NUTRITION.—There are no exact figures to compare with previous years, but the number of children referred for further observation on account of malnutrition was small, and it seems probable that the amount of malnutrition was less than in former years.

The question of the adoption of communal kitchens for the use of school children and of the general public has been under consideration in many districts. Apparently only one such kitchen has been formed—at Church Stretton.

The primary object appears to be to save bread and to substitute, so far as possible, foods of which there is no scarcity. One of the conditions is that the fees charged shall pay for the food. A charge of 2d. is made at Church Stretton and an additional jam tart can be obtained for a $\frac{1}{2}$ d.

There is a danger under such circumstances that the amount of food supplied may be insufficient. Nor can the feelings of the children be accepted as altogether a safe guide if the foods given in a very bulky form, e.g. soups, potatoes, vegetables, stews, etc. It should be accepted as a rule that a child should have at the mid-day meal at least one-third of the total daily food he requires. It is then only necessary to arrive at the average amount of food necessary for school children. It may be assumed as a rule that the ages of those attending the kitchen are fairly representative of the ages of the children attending school. On the assumption that 2,000 calories represent a suitable average quantity for children evenly distributed between the ages of 5 and 13, the mid-day meal for such children should not be less than 660 calories. The meals given at Church Stretton, at least in the early stages, worked out very considerably below this figure (see Appendix). I took the opportunity of pointing out that the meals were in my opinion inadequate, and some additions were made, but I was not supplied with the exact amounts. The head teacher of the school has kept fairly continuous records of the weights of the children, but an examination of these does not reveal any effect of the feeding one way or the other.

The difficulty appears to be, in supplying sufficient food at a price that will not deter the parents from sending their children. It must be remembered that the primary object was to save bread, and in this respect the work has been no doubt most successful. It has also been useful as a training in cleanliness and in proper behaviour at meals. It should, however, be an essential that any such scheme should provide for at least up to one-third the child's daily requirements and for this purpose the exact weights of all the foods used each day should be recorded and the numbers and ages of the children attending.

Great credit is due to the Church Stretton Committee for the manner in which they have carried out this important work.

The question of work out of school as it affects nutrition receives careful attention by the Medical Inspectors. Those children who have had special exemption for agricultural work are summoned for inspection, and if thought to be unfit for the work or require special care, reports are made.

No detailed investigation has been made with regard to the effect of work on the nutrition of children attending school, but the general impression received, is that work on the farms in substitution for school work has on the whole had a beneficial effect on the health of the children, whilst work in addition to school attendance has proved detrimental to the health of the children.

The curtailment of the mid-day interval to one hour, which was made in the winter months, in order to save fuel, was in my opinion a measure that could only be justified by extreme urgency. It is very undesirable that the mid-day interval for dinner should be reduced to less than $1\frac{1}{2}$ hours. This is the minimum time that is necessary for dinner, rest and recreation. If the children have any considerable distance to walk, even this is probably insufficient. A lessening of the interval is likely to interfere seriously with nutrition in a certain number of children and to a less extent to lower the vitality of the majority.

TABLE IV.—TREATMENT OF DEFECTS OF CHILDREN DURING 1917.

| CONDITION. | No. of defects found for which Treatment was considered necessary. | | | No. of defects for which no report is available | No. of defects treated. | Results of Treatment. | | | Doctor consulted but no treatment advised. | No. of defects not treated. | Percentage of defects treated |
|----------------------------|--|------|--------|---|-------------------------|-----------------------|-----------|------------|--|-----------------------------|-------------------------------|
| | From previous year. | New | Total. | | | Re-medied. | Improved. | Un-changed | | | |
| tion .. | 8 | 1 | 9 | 1 | 8 | .. | 7 | 1 | .. | .. | 88.9 |
| and Throat .. | 626 | 474 | 1100 | 196 | 253 | 157 | 43 | 53 | 39 | 612 | 23.0 |
| nal Eye Disease | 20 | 34 | 54 | 16 | 31 | 12 | 14 | 5 | 2 | 5 | 57.4 |
| Disease .. | 54 | 38 | 92 | 17 | 61 | 21 | 22 | 18 | .. | 14 | 66.3 |
| | 75 | 145 | 220 | 44 | 70 | 58 | 6 | 6 | .. | 106 | 31.8 |
| t and Circulation | 41 | 44 | 85 | 27 | 48 | 10 | 33 | 5 | .. | 10 | 56.5 |
| s .. | 44 | 25 | 69 | 22 | 42 | 5 | 20 | 17 | .. | 5 | 60.8 |
| bus System .. | 18 | 12 | 30 | 8 | 20 | 2 | 7 | 11 | .. | 2 | 66.6 |
| | 204 | 189 | 393 | 104 | 283 | 152 | 75 | 56 | .. | 6 | 72.0 |
| ets .. | 3 | .. | 3 | 3 | .. | .. | .. | .. | .. | .. | 0 |
| mities .. | 30 | 33 | 63 | 15 | 24 | 2 | 11 | 11 | 3 | 21 | 38.1 |
| rculosis—Non- monary .. | 16 | 10 | 26 | 7 | 16 | 4 | 6 | 6 | .. | 3 | 61.5 |
| h | 2 | .. | 2 | 2 | .. | .. | .. | .. | .. | .. | 0 |
| al Condition .. | 7 | 2 | 9 | 2 | 7 | .. | .. | 7 | .. | .. | 77.8 |
| n and Squint .. | 970 | 835 | 1805 | 457 | 607 | 236 | 196 | 175 | 29 | 712 | 33.6 |
| ng .. | 16 | 19 | 35 | 10 | 13 | 2 | 8 | 3 | .. | 12 | 37.1 |
| llaneous .. | 84 | 86 | 170 | 38 | 86 | 32 | 24 | 30 | 2 | 44 | 50.6 |
| Total .. | 2218 | 1947 | 4165 | 969 | 1569 | 693 | 472 | 404 | 75 | 1552 | 37.6 |

TABLE V.—INSPECTION, TREATMENT, &c. OF CHILDREN DURING 1917.

| | | |
|-----|--|------|
| (1) | The total number of children medically inspected (whether Code Group, special or ailing child) | 8071 |
| (2) | The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment). | 1124 |
| (3) | The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.) .. . | 1909 |
| (4) | The number of children in (3) who received treatment for one or more defects (excluding uncleanliness, defective clothing etc.) | 1483 |

It is satisfactory that notwithstanding the depletion in the school medical services, and the decrease in the facilities for treatment by private practitioners and hospitals, the number of defects treated during the year was 1569 compared with 1267 in 1916. Whilst it has not been possible to maintain the inspection up to the pre-war standard it has been our special object to see that the defects found should, if possible, have treatment.

The Facilities for Treatment provided by the County Council are:—Letters of recommendation granted to the following hospitals:—Eye, Ear and Throat Hospital for Shropshire and Wales, Shrewsbury; Birmingham & Midland Eye Hospital, Birmingham; North Staffordshire Infirmary, Stoke-on-Trent (since June, 1918); Eye Clinic at Oswestry—1/- paid by the parents towards cost. Before recommendations for hospitals or clinics are granted, the School Medical Officer certifies the case as suitable and inquiries are made as to the ability of the parents to pay for treatment.

TREATMENT FOR TUBERCULOUS SCHOOL CHILDREN—*Shirlett Sanatorium, Baschurch Surgical Home, and Tuberculosis Dispensaries.*—The County Council pays for the treatment of all cases of surgical tuberculosis, where the parents cannot afford the treatment. The cases that have been treated in the Home are kept under supervision and given minor treatment at various centres throughout the County after their discharge.

The children suffering from pulmonary tuberculosis are treated at the Shirlett Sanatorium or at the Dispensaries (Shrewsbury and Oswestry), or are visited and examined in their own homes by the Tuberculosis Officer.

FACILITIES BY THE LADY FORESTER CHARITY TRUST—*At the Broseley Hospital* treatment is provided :—

1. For defects of eyes, ears, throat and nose. Mr. Russ Wood attends for this purpose.

Twelve visits were paid by him during the year.

2. For defects of teeth—Mr. Mugford attended nine times during the year.

Glasses are obtained by the Trust in all cases where prescribed and supplied to the parents, who are expected to pay a part or the whole of the cost where they can afford it.,

Mr. T. C. Shingler, the Secretary to the Trust, has taken a very active interest in supervising and following up the treatment of the cases, and the Matrons of the Broseley and Wenlock Hospitals and the Nurses have co-operated heartily in this work.

The scheme for dental treatment referred to in my previous reports has not so far been adopted owing to objections on the part of the Charity Commissioners.

Under the present arrangements, 113 children were referred for treatment by the dentist and 36 have received treatment. Thirty-nine temporary teeth and 26 permanent teeth were extracted.

FUTURE PROVISION FOR TREATMENT.—The provision of clinics for minor ailments at several of the more populous centres is under consideration, and will shortly be made.

Increased facilities for the treatment of defects of eyes, throat, nose, ear and teeth will be one of the matters for immediate consideration after the war.

Treatment received at the Eye, Ear and Throat Hospital for Shropshire and Wales, Shrewsbury, during the year, on Recommendations supplied by the County Council.—One hundred and seventy letters of recommendations were supplied and 164 of them have been used.

The results of treatment, so far as re-inspection has gone, are very satisfactory.

Of the 164 children who have had treatment, 126 were for eye defects, 34 for throat defects, and 4 for ear defects.

EYE DEFECTS.—Sixty-five of the 126 children have been re-inspected :—

57 have obtained glasses with satisfactory results ,

5 have obtained glasses but defects are unaltered ;

3 other treatment than glasses prescribed ;

Sixty-one children have not yet been re-inspected, but information shows that :—

53 have obtained glasses ;

2 have had glasses prescribed but did not get them ;

5 other treatment than glasses prescribed ;

1 no treatment advised.

THROAT AND NOSE DEFECTS.—Thirteen of the 34 children have been re-inspected. All these have been operated on with satisfactory results. Of the 21 not yet re-inspected, information shows that 15 have been operated on ; 2 have received other treatment ; 2 are waiting for vacancies and 2 children visited the hospital but no treatment was advised.

EAR DEFECTS.—The 4 cases have received treatment ; one case improved ; in 3 cases the results are unknown,.

Treatment at Oswestry Eye Centre.—Twenty-six cases were treated up to the end of the year. All of them have obtained glasses. Twelve are reported as remedied and 14 as improved.

Work of the Nurses in bringing about Treatment—Every case found by the Medical Inspectors to require medical or other treatment has been referred to the nurse to follow up where a nurse is available. In most districts the nurse has followed up the cases satisfactorily, but in a few districts the following up was very incomplete. Of 2395 cases referred to the nurses during the year, 2,097 were followed up more or less satisfactorily. In 298 cases no visit was paid.

The Nurses provided by the Lady Forester Trust have paid a large number of visits to the homes of the children, for the purpose of following up those requiring medical treatment and for the verminous conditions. We have no record of the number of visits.

Action taken to Detect and Prevent Infectious Diseases, including Reference to action under Articles 45 (b), 53 (b), and 57 of the Code of 1912.

A description of the scheme of notification of infectious disease from schools and of the measures taken to prevent the spread of infectious disease was given on pages 44, 45 and 46 of the report for 1914.

The school nurses have on many occasions rendered valuable help in taking swabs from doubtful sore throats or contacts during the year.

Under Article 53 (b), 894 children have been excluded from school for infectious disease and other conditions :—

| | |
|-----|-------------------------|
| 5 | on account of measles. |
| 96 | „ impetigo. |
| 219 | „ ringworm of scalp. |
| 20 | „ ringworm of body. |
| 74 | „ scabies. |
| 437 | „ verminous conditions. |
| I | „ scarlet fever. |
| 14 | „ suspected phthisis. |
| 9 | „ diagnosed phthisis. |
| 10 | „ chicken-pox. |
| 7 | „ mumps. |
| 2 | „ various causes. |

School closure has been effected entirely under Article 45 by the School Medical Officer, either on information obtained direct from the school, or on the advice of the District Medical Officer of Health. Under this Article, 151 schools were closed for the following reasons :—57 for measles, 20 for whooping cough, 6 for scarlet fever, 6 for diphtheria, 7 for chicken-pox, 26 for mumps, 18 for influenza, and 11 for other causes.

REVIEW OF THE METHODS ADOPTED AND THE ADEQUACY OF SUCH METHODS FOR DEALING WITH BLIND, DEAF, MENTALLY OR PHYSICALLY DEFECTIVE AND EPILEPTIC CHILDREN UNDER THE ACTS OF 1893 AND 1899.

A numerical return of all exceptional children in the area was made in the report for 1914. The information is not available for this report.

Three blind children, 2 deaf and dumb children and one epileptic child were sent to special schools.

Examination of the mentally defective children has fallen much behind, but it is hoped it will be possible shortly to deal with them more efficiently.

TEACHING OF HYGIENE, PHYSICAL EXERCISES, OPEN AIR SCHOOLS.

For the general remarks on these subjects reference must be made to the report for 1914, pages 49 and 50.

No teachers have been sent by the County Council to the Summer Vacation Course of physical training, but three teachers were selected by the Board of Education and sent for training in 1917 and 2 have been selected in 1918. I consider this very inadequate provision, but under the circumstances it is perhaps all that could be expected. It is most important that the trained teachers should be utilised to the fullest extent in teaching the other teachers throughout the County, and I strongly recommend that classes be held for this purpose.

OPEN AIR SCHOOLS.—An open air school is now provided in connection with the Shropshire Surgical Home, Baschurch. At this Home cases of surgical tuberculosis and other deformities are treated. The County Council make themselves responsible for the payment of tuberculous cases. The payment for the other cases is made mostly through the Guardians. The Boards of Guardians take very different views of their responsibilities in this respect and much delay in the treatment often results.

At the Baschurch Home, 28 children of school age belonging to the Education County were treated during the year. The children were treated for the following conditions :—

| | | |
|-------------------------------|--------------------|---------------------------------|
| Tuberculous Bones and Joints. | Rickets. | Deformities from Poliomyelitis. |
| 5 | 1 | 8 |
| Scoliosis. | Other Deformities. | Other Diseases. |
| 3 | 5 | 6 |

Just before the war a plan for a new elementary school on the open air principle had been got out. It is to be hoped that after the war no other kind of school will be erected. The application of the principle of open air schools in general is infinitely more important than the provision of special open air schools. As stated in last year's report :—" Teachers should be encouraged to hold open air classes when the weather permits where there is a playground suitable for the purpose. A covered playing shed, or the shelter of a spreading tree will frequently provide all the protection that is required. The provision of a suitable shed in connection with the schools, where otherwise open air teaching is impossible, is worth consideration."

" It is most important, however, that the ordinary schoolrooms should be so constructed, that in suitable weather by throwing all the windows open they become practically open air classrooms. This is the important aim that should be constantly kept in view."

APPENDIX.

MID-DAY MEALS FOR SCHOOL CHILDREN.

To a Member of the Church Stretton Committee.

I have carefully gone through the quantities of food that you give the school children at their mid-day meals, and as I think the matter is of great importance, not only to Church Stretton, but to the County generally, I will deal with it at some length.

I take it that the objects you have in view are (1) to save bread by providing substitutes ; (2) to prevent waste, and (3) at the same time to preserve or improve the children's health.

I understand you try to keep the cost of the food within an expenditure that is covered by the price paid for the dinners.

The last consideration is an important one, but it should not stand in the way of sufficient food being provided.

It is rather a difficult matter to make certain that a meal is really sufficient unless you calculate its energy value. Besides its energy value, it is also necessary that the food shall be varied and that it shall contain sufficient body building material. It is hardly a safe guide that the children appear to be satisfied, for if given in an unduly bulky form a child will often be satisfied for the time without having really had sufficient food. Nor is it sufficient to find that some of the underfed children have improved.

If the mid-day meal at school is insufficient, it will no doubt result at good homes in more food being eaten at home.

The first point to arrive at is :—

How much of the child's daily food should be eaten at the mid-day meal ?

Have you thought of this point ?

I think certainly not less than one-third and probably two-fifths. Suppose we take one-third, being the smaller amount, and work out the energy units (calories) that should be supplied on this basis.

The food Ministry have issued suggestions with regard to the weekly amounts to be given to children aged 6—8 and 9—12, both of rationed foods and other foods.

On the basis that the mid-day meal is one-third of the whole daily food, these quantities work out at

600 calories for ages 6—8 for the mid-day meal and

700 calories for ages 9—12 for the mid-day meal.

If the mid-day meal is assumed to be two-fifths, these amounts would be correspondingly higher.

The caloric values of your meals as supplied to me work out for 90 children at :—

| | | | |
|-----------|-----|----------|--|
| Monday | 491 | Thursday | 436 |
| Tuesday | 237 | Friday | 308 (omitting bones, carrots and turnips). |
| Wednesday | 528 | | |

I think therefore that these meals should be increased and to not less than 650 calories.

In addition to the energy value one has to some extent to think of the body building value, although with varied food and considering it is only one meal of a day, perhaps this need not give you great anxiety.

I may point out however that fats, sugars, sago, tapioca and to a great extent fruits, potatoes and other vegetables are energy producers only. Whereas meats, cheese, eggs, nuts, peas, beans, lentils, oatmeal, bread and rice (to a less extent) are the principal body builders.

The following figures may be a guide to you. They are calculated from the Ministry of Food's suggestions with regard to the weekly amounts of food to be allowed for children, the rationed and unrationed foods being separated.

As one of your objects is to diminish bread at the mid-day meal, you will no doubt, so far as possible, substitute other unrationed foods particularly potatoes for bread. I give the energy value per lb. or per oz. of the food in order that you will have some guide in substitution.

A comparatively small number of these foods may be necessary for one meal, but in the course of a week they would probably nearly all be used. The important point is to see that the total energy value of the meal approximates to the total given. I expect you will probably have to use bread in somewhat larger quantity than you have done, but it should be strictly limited.

Food for the Mid-day Meal of 90 Children—Half under 9 and half over 9 years of age.

| Calories per lb. or per oz. | Rationed Foods. | Amount of Food. | Total Calories. |
|--------------------------------|--------------------|--------------------|--------------------|
| 1176 per lb. | Bread | 17½ lbs.* | 20160 |
| 100 , , oz. | Other cereals | 38½ ozs. | 3857 |
| 1040 , , lb. | Meat | 7½ lbs. | 7800 |
| 250 , , oz. | Butter and Fat | 38½ ozs. | 9643 |
| 110 , , oz. | Sugar | 34½ ozs. | 3771 |

Other Foods.

| | | | |
|---------------|------------------|-----------|---------------------------|
| 310 , , lb. | Potatoes | 19½ lbs. | 5979 |
| 150 , , lb. | Other Vegetables | 4½ lbs. | 643 |
| 212 , , pint. | Milk | 8½ pints. | 1817 |
| 111 , , oz. | Cheese | 4½ ozs. | 476 |
| 80 , , oz. | Eggs (2 oz.) | 8½ ozs. | 686 |
| 25 , , oz. | Fish | 17 ozs. | 429 |
| 60 , , oz. | Jam and Syrup | 51½ ozs. | 3086 |
| 120 , , oz. | Cocoa | 4½ ozs. | 514 |
| | | | 58861 i.e. 654 per child. |

* Potatoes and other vegetables should be substituted for most of this bread.

I shall be glad to give any further information or help that I can.

Yours sincerely,

20th December, 1917.

JAMES WHEATLEY.

P.S.—I consider the fats supplied should be increased.

